

Title (en)

A process and system for recording erg, perg and vep multifocal electrofunctional responses in real time

Title (de)

Verfahren und System zur Echtzeit-Aufzeichnung von multifokalen ERG-, PERG- und VEP-Elektrofunktionalantworten

Title (fr)

Procédé et système pour enregistrer des réponses électrofonctionnelles multifocales erg, perg et vep en temps réel

Publication

EP 2110075 A1 20091021 (EN)

Application

EP 09155889 A 20090323

Priority

IT FI20080081 A 20080418

Abstract (en)

A process and system for determining the topography of the bioelectric response signals of a visual system including retina, optical nerve or their projection at the level of the central cortex, following visual stimulation through a surface arranged in front of the patient's eye, in which an image consisting of a plurality of cells is displayed as stimulation, each cell being activated or deactivated according to a corresponding digital time function represented by a cyclic succession of binary m-sequences of duration (T) formed from a plurality of activation symbols (N) each having a duration (Ts), the m-sequences of the various cells being obtained cyclically from a mother m-sequence, the process determining the total bioelectric response of the visual system, the response associated with each cell being determined by the total response of the visual system by means of a cross-correlation with a suitable translated version of a mother m-sequence, wherein the calculation of the response of each cell is updated at the end of each symbol time (Ts), thereby it is possible to follow the evolution of the calculated response of each cell in real time without awaiting the end of an m-sequence.

IPC 8 full level

A61B 5/0484 (2006.01); **A61B 5/0496** (2006.01)

CPC (source: EP US)

A61B 5/378 (2021.01 - EP US); **A61B 5/398** (2021.01 - EP US); **A61B 5/7228** (2013.01 - EP US); **A61B 3/12** (2013.01 - EP US)

Citation (applicant)

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- M.A. BEARSE ET AL.: "imaging localized retinal dysfunction with the multifocal electroretinogram", J. OPT. SOC. AM., vol. 13, no. 3, March 1996 (1996-03-01)

Citation (search report)

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Designated contracting state (EPC)

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Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

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DOCDB simple family (application)

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